

CLAIMS

1. A method for a computer server to respond to a request from a client, the method comprising:
 - the server receiving the request from the client;
 - the server identifying a task corresponding to the request, the identified task including a set of core task components and a set of peripheral task components, the core task components including task components that must be completed before a decision is made on whether to honor the request, the peripheral task components including task components that can be completed after a decision is made on whether to honor the request;
 - the server responding to the request by performing the core task components of the identified task;
 - the server collecting request context data relevant to the request and the identified task;
 - the server returning a result to the requesting client based on having performed the core task components of the identified task;
 - the server constructing a message to include the collected request context data and the returned results;
 - the server sending the constructed message to an asynchronous message collector;
 - whereby an asynchronous message processor takes up and processes the message from the collector to perform one or more peripheral task components of the identified task based on the message, whereby the message processor performs less-time-sensitive peripheral work independent of the server and allows the server to attend to more-time-sensitive core work.

2. The method of claim 1 further comprising the asynchronous message processor taking up and processing the message from the collector to perform one or more peripheral task components of the identified task based on the message.

3. The method of claim 1 wherein the server collects request context data including input parameters on the request, and data generated as a result of performing the core task components of the identified task.

4. The method of claim 1 comprising the server identifying the task corresponding to the request, the identified task including core task components including task components identified as necessary to be performed prior to responding to the corresponding request.

5. The method of claim 1 comprising the server identifying the task corresponding to the request, the identified task including core task components including task components identified as relatively low-bandwidth tasks that do not adversely impact response time.

6. The method of claim 1 comprising the server identifying the task corresponding to the request, the identified task including peripheral task components including task components identified as relatively high-bandwidth tasks that could adversely impact response time.

7. The method of claim 1 comprising the server collecting the request context data and organizing same according to a pre-defined schema recognizable to each message processor.

8. The method of claim 1 comprising the server sending the constructed message to the asynchronous message collector according to a

reliable message technology protocol to ensure delivery of the message to the collector.

9. The method of claim 1 comprising one of a plurality of message processors associated with the collector taking up and processing the message from the collector.

10. The method of claim 1 comprising the server collecting request context data defining the peripheral task components to be performed by the message processor, the message processor taking up and processing the message from the collector to perform the peripheral task components defined by the collected request context data of the message.

11. The method of claim 1 comprising:
the server sending the constructed message to one of a plurality of asynchronous message collectors, each collector having an asynchronous message processor associated therewith;
the asynchronous message processor associated with the sent-to collector taking up and processing the message therefrom to perform one or more peripheral task components of the identified task based on the message.

12. The method of claim 1 comprising:
the server sending the constructed message to a first asynchronous message collector;
a forwarding server taking up the message from the first collector and forwarding same to one of a plurality of second asynchronous message collector based on a load balancing algorithm, each second collector having an asynchronous message processor associated therewith;
the asynchronous message processor associated with the sent-to second collector taking up and processing the message therefrom to

perform one or more peripheral task components of the identified task based on the message.

13. The method of claim 1 comprising:

the server sending the constructed message to a plurality of asynchronous message collectors, each collector having an asynchronous message processor associated therewith;

the asynchronous message processor associated with each sent-to collector taking up and processing the message therefrom to perform one or more peripheral task components of the identified task based on the message.

14. The method of claim 1 comprising:

the server encrypting the constructed message and sending the encrypted message to the asynchronous message collector;

the asynchronous message processor taking up and decrypting the message from the collector and processing the decrypted message.

15. The method of claim 1 comprising:

the server signing the constructed message and sending the signed message to the asynchronous message collector;

the asynchronous message processor taking up and verifying the signed message from the collector and processing the verified message.

16. The method of claim 1 for a rights management (RM) server in an RM system to respond to a request for an RM service from an RM client.

17. A computer-readable medium having stored thereon computer-executable instructions for performing a method for a computer server to respond to a request from a client, the method comprising:

the server receiving the request from the client;

the server identifying a task corresponding to the request, the identified task including a set of core task components and a set of peripheral task components, the core task components including task components that must be completed before a decision is made on whether to honor the request, the peripheral task components including task components that can be completed after a decision is made on whether to honor the request;

the server responding to the request by performing the core task components of the identified task;

the server collecting request context data relevant to the request and the identified task;

the server returning a result to the requesting client based on having performed the core task components of the identified task;

the server constructing a message to include the collected request context data and the returned results;

the server sending the constructed message to an asynchronous message collector;

whereby an asynchronous message processor takes up and processes the message from the collector to perform one or more peripheral task components of the identified task based on the message, whereby the message processor performs less-time-sensitive peripheral work independent of the server and allows the server to attend to more-time-sensitive core work.

18. The medium of claim 17 wherein the method further comprises the asynchronous message processor taking up and processing the message from the collector to perform one or more peripheral task components of the identified task based on the message.

19. The medium of claim 17 wherein the server collects request context data including input parameters on the request, and data generated as a result of performing the core task components of the identified task.

20. The medium of claim 17 wherein the method comprises the server identifying the task corresponding to the request, the identified task including core task components including task components identified as necessary to be performed prior to responding to the corresponding request.

21. The medium of claim 17 wherein the method comprises the server identifying the task corresponding to the request, the identified task including core task components including task components identified as relatively low-bandwidth tasks that do not adversely impact response time.

22. The medium of claim 17 wherein the method comprises the server identifying the task corresponding to the request, the identified task including peripheral task components including task components identified as relatively high-bandwidth tasks that could adversely impact response time.

23. The medium of claim 17 wherein the method comprises the server collecting the request context data and organizing same according to a pre-defined schema recognizable to each message processor.

24. The medium of claim 17 wherein the method comprises the server sending the constructed message to the asynchronous message collector according to a reliable message technology protocol to ensure delivery of the message to the collector.

25. The medium of claim 17 wherein the method comprises one of a plurality of message processors associated with the collector taking up and processing the message from the collector.

26. The medium of claim 17 wherein the method comprises the server collecting request context data defining the peripheral task components to be performed by the message processor, and the message processor taking up

and processing the message from the collector to perform the peripheral task components defined by the collected request context data of the message.

27. The medium of claim 17 wherein the method comprises:
the server sending the constructed message to one of a plurality of asynchronous message collectors, each collector having an asynchronous message processor associated therewith;
the asynchronous message processor associated with the sent-to collector taking up and processing the message therefrom to perform one or more peripheral task components of the identified task based on the message.

28. The medium of claim 17 wherein the method comprises:
the server sending the constructed message to a first asynchronous message collector;
a forwarding server taking up the message from the first collector and forwarding same to one of a plurality of second asynchronous message collector based on a load balancing algorithm, each second collector having an asynchronous message processor associated therewith;
the asynchronous message processor associated with the sent-to second collector taking up and processing the message therefrom to perform one or more peripheral task components of the identified task based on the message.

29. The medium of claim 17 wherein the method comprises:
the server sending the constructed message to a plurality of asynchronous message collectors, each collector having an asynchronous message processor associated therewith;
the asynchronous message processor associated with each sent-to collector taking up and processing the message therefrom to perform one or more peripheral task components of the identified task based on the message.

30. The medium of claim 17 wherein the method comprises:
the server encrypting the constructed message and sending
the encrypted message to the asynchronous message collector;
the asynchronous message processor taking up and
decrypting the message from the collector and processing the decrypted
message.

31. The medium of claim 17 wherein the method comprises:
the server signing the constructed message and sending the
signed message to the asynchronous message collector;
the asynchronous message processor taking up and verifying
the signed message from the collector and processing the verified message.

32. The medium of claim 17 wherein the method is for a rights
management (RM) server in an RM system to respond to a request for an RM
service from an RM client.